

Alter Table

The Alter Table statement is used to:

- Add a column (with or without constraints)
- Drop an existing column (assuming you do not break any referential integrity such as PK -> FK)
- Change the datatype of an existing column
- Add a default value to an existing column
- Drop a default from an existing column
- Add/Drop a Not Null constraint to an existing column
- Drop an existing constraint
- Add a table constraint
- Rename a column, or column constraint, or table

Simplified syntax to Add/Drop/Alter column and/or constraint:

Alter Table ***table_name***

```
{  
    Add [Column] column_name data_type [ column_constraint [ ... ] ]  
    |  
    Drop [Column] column_name |  
    Alter [Column] column_name Set Data Type data_type |  
    Alter [Column] column_name Set Default expression |  
    Alter [Column] column_name Drop Default |  
    Alter [Column] column_name { Set | Drop } Not Null |  
    Drop Constraint constraint_name |  
    Add table_constraint  
} [, ... ]
```

Note: ***column_constraint*** and ***table_constraint*** syntax are the same syntax as in the Create Table document and will be fully taught in a later lesson.

Example:

To add a column YearFounded to the table Club:

```
Alter Table Club
```

Add Column YearFounded integer;

To drop the column YearFounded from the table Club:

Alter Table Club

Drop Column YearFounded;

To change the datatype of CourseHours in the Course table from smallint to integer:

Alter Table Course

Alter Column CourseHours Set Data Type integer;

Simplified syntax to Rename a column:

Alter Table ***table_name*** Rename [Column] ***old_column_name*** To ***new_column_name***

Example:

To rename the LoginID column to UserName in the Staff table:

Alter Table Staff

Rename Column LoginID To UserName;

Simplified syntax to Rename a constraint:

Alter Table ***table_name*** Rename Constraint ***old_constraint_name*** To ***new_constraint_name***

Example:

To rename the FK_Staff_PositionID_To_Position_PositionID constraint on the Staff table to FK_Staff_PosID_To_Position_PosID (Note: foreign Keys will be taught later):

Alter Table Staff

Rename Constraint FK_Staff_PositionID_To_Position_PositionID
To FK_Staff_PosID_To_Position_PosID;

Simplified syntax to Rename a table:

Alter Table ***old_table_name*** Rename To ***new_table_name***

Example:

To rename the Position table to JobPosition:

Alter Table Position

Rename To JobPosition;